REMARKS

Claims 1-25 remain in the case. Claims 1-25 stand rejected. Claim 15 has been amended to comply with proper claiming conventions. No new matter has been added.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103

Claims 1-25 stand rejected under 35 U.S.C. § 103 as being anticipated by Takeura et al. (U.S. Patent No. 4,807,073) in view of Jurisch et al (U.S. Patent No. 5,048,175). Applicants respectfully traverse this rejection as set forth below.

The Office Action states that Takeura discloses the basic elements of claim 1. No mention is made regarding how Jurisch relates to claim 1. Consequently, applicants rely on their previous argument regarding claim 1. Specifically, Claim 1 recites a material selected to have a low dielectric which is interposed between the electrical contact pad and the insulating layer. Takeura's description of Figure 5 does not disclose such material so interposed. The Office Action states that Takeura discloses the material selected to have a low dielectric of the present invention in the form of the insulating film 13 of the prior art. If this were the case, Takeura provides no disclosure of the insulating undercoat as provided in the amended claim. Alternately, if the insulating film in Takeura were the insulating undercoat of the present invention, Takeura fails to disclose the material selected to have a low dielectric of the presently claimed invention. Either way, the cited reference in Takeura fails to disclose all of the features of claim 1, as amended, and therefore does not anticipate the invention of claim 1.

It may be that the examiner considers the layer 13 of Takeura to serve as both of these layers. Nevertheless, this is insufficient to teach the entirety of the claim, as required for a prima facie case of obviousness. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1576 (Fed. Cir.

1987). The undercoat, as shown in Figure 6 at 608 and Figure 2 at 202 serves to insulate the active elements of the magnetic head. As such, it is formed under the active components of the magnetic head. See, Page 7, lines 13-17: "Shield layers 204(S1 and S2) are formed on the alumina undercoat 202." Thus, the undercoat is a specific layer. The dielectric material is interposed between the pad and the insulating undercoat. Consequently, the dielectric material forms a second layer, which by definition does not, at least totally, underlie the active components of the magnetic head. The layer 13 of Figure 5 may be an underlayer, but it is certainly not an underlayer and a dielectric layer interposed between the underlayer and a pad.

The office action mentions at page 3 dielectric materials 13 and 2. If the office action is attempting to make the argument that these two layers comprise the insulating undercoat and the dielectric material, it fails in doing so, because the layers 2 and 13 are shown to the side of one another, rather than with one interposed between the other and another layer.

The other independent claims are believed allowable for the same reasons. Additionally, claim 15 has not been discussed in the office action, as was pointed out in the last response. Claim 15 is directed to the contact pad and recites a reduced area contact pad that reduces capacitance coupling with the substrate. Claim 15 is believed to be allowable, and no reasons for rejecting claim 15 have been given.

Regarding the rejection of claim 2, the office action conclusively states that the low dielectric material 13 of Takeura et al is configured to decrease the parasitic capacitance of the magnetic head. Yet, Takeura makes no reference to providing the layer 13 to reduce parasitic capacitance. In fact, Takeura is directed to a different problem than the present invention. Takeura attempts to reduce thermal noise and therefore increases the signal to noise ratio. See,

column 1, lines 40-42 and column 2, lines 31-35. Takeura does this by reducing the second gap. See, column 1, line 62-column 2, line1. Stray capacitance is reduced by shorting the substrate and the core 14. Nevertheless, this does not solve the problem of stray capacitance between the contacts 610 and the substrate 614 of the present invention. Indeed, nowhere does Takeura state that a low dielectric material is used for layer 13 to decrease capacitance. Layer 13 appears to be provided as an insulator, and as such is quite thin, which, as discussed in the present application, does not assist in reducing parasitic capacitance, but would tend to do just the opposite.

With regard to the rejection of claim 3, Jurisch is cited for the prospect of a stud formed through the low dielectric material. Once again, as the claimed low dielectric material is interposed between the underlayer and a contact pad, the stud must pass through a low dielectric material that is different than an underlayer. Yet, the only stud in Jurisch, stud 40, passes through layer 36, which is clearly an underlayer. It does not pass through any other layer.

This is because the stud 40 of Jurisch is used for a different purpose than the stud of claim 3. The stud of claim 3 is used to increase the distance between the contact pads 610 and the substrate 614 and to allow the low dielectric material 602 to be interposed between the contacts 610 and the undercoat layer 608. The stud of Jurisch is used to short the substrate 12 of Jurisch and the core 14. See, Jurisch column 3, lines 63-67. Using the stud of Jurisch to pass through the dielectric layer would destroy the utility of the present application, as it would cause a short between the contact lead and the active elements of the magnetic head to which the contact lead connects. It would do the same for Takeura, destroying the utility of Takeura, which is an impermissible combination of references, as references are not properly combinable where a proposed modification would render one of the references unsuitable for its intended purpose. *In*

re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). If the office action proposes passing the stud through different layers than what is shown in Jurisch, a proper teaching for doing so other than just hindsight must be given.

Furthermore, the office does not give a proper motivation or suggestion for the specific combination of references. *Prima Facie* Obviousness. "It is insufficient that the prior art disclosed the components of the patented device, either separately or used in other combinations; there must be some teaching, suggestion, or incentive to make the combination made by the inventor." *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 934 (Fed. Cir. 1990) See e.g. *Interconnect Planning Corp. v. Feil,* 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed.Cir.1985). To establish *prima facie* obviousness, there must be some suggestion or motivation to modify the reference or to combine reference teachings to arrive at the claimed invention. "The teaching or suggestion to make the claimed combination ... must be found in the prior art, not in applicant's disclosure." MPEP 2143, citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." See *MPEP 2143.01*, citing *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

What the office action seems to be stating is a general obvious-to-try rationale. Yet, such a basis for combination is prohibited. Here, the examiner is suggesting that a single element can be lifted from Jurisch reference with no instruction for how to do so (or as stated above, motivation for doing so). This argument failed in *Ex Parte Obukowicz*, 27 USPQ2d 1063 (B.P.A.I. 1992), where the court stated:

At best, the Dean statement is but an invitation to scientists to explore a new technology that seems a promising field of experimentation. The Dean statement is of the type that gives only general guidance and is not at all specific s to the particular form of the claimed invention and how to achieve it. Such a suggestion may make an approach "obvious to try" but it does not make the invention obvious. *Id.* at 1065.

With regard to claim 6, the office action cites no component in the prior art that teaches the use of hard baked photo resist for use as the low dielectric material interposed between the pad and the insulating undercoat. The office action seems to be stating that this element can be dismissed because it is functional. Nevertheless, claiming photoresist is claiming a definite structure. Claiming hard baked photoresist is merely a way to claim photoresist having a cured state. Doing so is once again defining structure, as cured photoresist is a different structure from uncured photoresist. Yet, the office action does not make reference to photoresist of any type whatsoever, and consequently, has not made a proper prima facie case of obviousness for claim 6.

With regard to claim 7, the office action states that the low dielectric material is disclosed as being SiO2. Nevertheless, the cited passage, column 10, lines 52-55 cite to a first and second head gap, not to the recited claim element, or even to the layer 13 which is cited as rendering the recited claim element obvious.

Regarding claims 8-12, the office action states at page 4 that it would have been obvious to have made the cited thickness and constant of the low dielectric material in order to provide a

head that corresponds with the magnetization reversal interval and cites column 3, lines 39-476. Applicants fail to see what this has to do with the particular selections of thicknesses and dielectric constant of claims 8-12. Nor is it evident why these particular qualities would be selected in light of the prior art.

Regarding claim 13, it is not apparent where the examiner is finding support that the inductive read write head of Jurisch could be combined with the MR head of Takeura to form a GMR head having the specific configuration of claim 1.

Claim 15 has not been addressed by the office action, as discussed above.

Claim 16 is believed patentable at least for the reasons given above for claim 1 and claim 6. In addition, claim 16 recites that the conducting stud is formed through the low dielectric material to make electrical connection between the electrical contact pad and the insulating layer. Jurisch does not make contact with an electrical contact pad. So doing would short out the electrical contact pad, as the stud of Jurisch is in contact directly with the substrate and with an active element of the magnetic head.

Claims17- 25 are believed allowable at least for the reasons given above for claim 1.

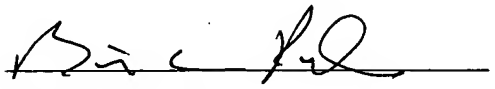
CONCLUSION

As a result of the presented remarks, Applicants assert that independent claims 1, 16, 17, and 22-25 are in condition for prompt allowance. Dependent claims 3-15, and 18-21, which depend from these independent claims, are also in condition for prompt allowance.

Should additional information be required regarding the amendment or traversal of the rejections of the independent and dependent claims enumerated above, the Examiner is respectfully asked to notify Applicants of such need. If any impediments to the prompt

allowance of the claims can be resolved by a telephone conversation, the Examiner is respectfully requested to contact the undersigned.

Respectfully submitted,



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